

ETC Minutes - 9/1/2009

Tuesday, August 18, 2009
3:00 PM

Attendees

- Matt Cechini (ECHO Ops)
- Dan Pilone (ECHO)
- Linnette Quick (ECHO Ops)
- Alex Laie (ECHO Ops)
- Doug Fowler (NSIDC)
- Dave Korn (NSIDC)
- Amanda Leon (NSIDC)
- Cathy Fowler (NSIDC)
- Frank Schaffer (NSIDC)
- Matt Martens (LPDAAC)
- Julie Luebke (LPDAAC)
- Ed Seiler (GSFCS4PA)
- Lindsay Parker (ASDC)
- Greg Cates (ASDC)
- Marilyn Drewry (GHRC)
- Ben McMurtry (ORNL)
- Ed Seiler (GSFCS4PA)
- Rosy Corodva (GCMD)
- Chris (PODAAC)

Agenda

1. ECHO Operations Status
2. Degraded Service Events
3. Order Dispatching Fault Tolerance
4. Additional Attribute Order Ops Concept Review
5. ECHO/WIST "Not Orderable" Error Message
6. NCR 11004697 - WIST Product Email
7. Communications Policies
8. Upcoming Events
 - a. 10.15 to Partner Test (Week of 9/1)
 - b. 10.16 to Operations (9/16/09)
9. Other Questions/Issues

1. ECHO Operational Status

ECHO Operations continues to handle the query, order, and ingest load without any systemic issues. Operations continues to have an increased load servicing GDEM data discovery and orders.

- 10.15 is on schedule for release into ECHO Operations on the September 16th. This release contains the new Reconciliation functionality which was previously reviewed.

2. ECHO Operational Status

As part of ECHO's continuing effort to improve communication with its data providers, we have undertaken a new approach to deal with any outages or degraded performance situations in the ECHO system. We understand outages or system degradation as it would be seen by a user, regardless of where the failure occurred in the processing stream. For example, if any external (to ECHO) component suffers any problem and this is noticeable by ECHO users, then that would be considered a situation that ECHO needs to address to correct or mitigate.

Messages will be sent to the echo-status-internal mailing list every time there is any such event and will give a brief synopsis of the event during the following ETC where ECHO partners can ask more questions or provide any other feedback.

**** July 26 2009 - Degraded Service Event ****

On July 26th, ECHO experienced a "Degraded Service Event."

During this event, ECHO experienced a slowness in response while submitting orders to the LPDAAC order fulfillment service. After the configured internal timeout, ECHO was correctly moving orders to the retry queue and processing subsequent orders. Due to the large number of orders which were being serviced for LPDAAC, ECHO was in a state where non-LPDAAC orders were not being serviced in a timely manner. A similar situation occurred around June 21st – 24th with LPDAAC order fulfillment connectivity. An NCR was written at that time, procedures put in place to detect the situation, and NCR 11004606 was written to track an ECHO enhancement to increase order dispatching fault tolerance.

Incident to the recent event, the ECHO managed mailing lists were non-functional due to an unrelated issue. This outage did not have an impact on the detection of the outage, but had the potential to have delayed discovery without LPDAAC's intervention. The ECHO monitoring tool would have notified ECHO operations regarding the stuck orders after being stuck for more than 6 hours. This notification would have been sent an ECHO mailing list, and hence could have been affected by the outage.

After being notified of the issue, ECHO Operations investigated the issue and was able to identify that there was an issue communicating with the LPDAAC order fulfillment service. A configuration workaround was implemented in to order to address the issue and release the backlog of orders. At that point, all non-LPDAAC orders were successfully serviced. All LPDAAC orders were put into a retry state. After LPDAAC resolved their internal system issues, the temporary workaround was removed and LPDAAC orders began to be serviced according to the normal retry process.

ECHO has a proposed solution to NCR 11004606 which will be reviewed during this 9/1 ETC meeting and is considered for inclusion in Sprint 10.17 pending Data Provider review and priorities. Configuration changes and additional monitoring have been added to mitigate issues with the ECHO managed mailing lists.

3. Order Dispatching Fault Tolerance

In response to situations like the degraded service event mentioned previously, ECHO is proposing to add a new capability to improve its order dispatching fault tolerance. This functionality is described below:

If a provider's order fulfillment end point is found to be a problem, that provider will be internally marked as not available for ordering. ECHO Operations and the configured Data Provider contacts will be notified when this occurs. ECHO will automatically queue all orders for this provider until the configured retry interval has expired. At that point, ECHO will retry to submit an order for the suspended provider. If order submission is successful, the provider will be marked as available for ordering and orders will be submitted according to the configured retry policies. If the order submission is not successful, the provider will be re-marked as not available for orders and another email will be generated. This will continue until the order issues are resolved. By taking a provider out of the normal order submission queue, all other provider orders will be serviced in a timely manner.

A new flag in the provider's policies will be added to designate the provider's order submission availability. ECHO Operations and providers will be able to manually set their provider as not available for order dispatching and view their current status through PUMP.

- Amanda - Wouldn't this situation happen whenever the DAACs have a downtime?
 - No, in that case, ECHO quickly determines that a providers order interface is not available and orders are automatically moved to the retry queue, moving out of the way of all other orders.
- Greg - Will this obsolete the current process where DAACs send status updates to ECHO Operations?
 - No, this is a defensive mechanism to ensure that unexpected outages or system issues do not cause issues for the order dispatching of all providers.
 - The same workflow that is used now should continue where providers let ECHO Operations know via email when they have outages.

4. Additional Attribute Ordering Ops Concept Review

The Additional Attribute Ordering Ops Concept was reviewed during this ETC and there were no concerns reported. This will be considered for a future ECHO release.

5. ECHO/WIST Not Orderable Message

LPDAAC has requested that we update the error message that is returned to users when they attempt to order a granule that they do not have permissions to order. This happens regularly for ASTER L1A data orders due to the recent changes in billing and ordering policies. WIST and ECHO do not have the ability to tailor an error message in this condition based upon what granules the user is attempting to order. However, ECHO Operations can configure ECHO to add additional error text which is displayed with every instance of the error. The screen shot attached to the meeting agenda shows an updated error message that would be displayed were a user to attempt to order a granule for which they are not allowed to order.

- Dave Korn - Would like to have the specific catalog items ordered first. Have the Ops Message listed after the error text and ID.
 - LP will discuss internally whether they agree with this request.
 - A ticket should be submitted by NSIDC to track this feature request.
- Dave - The text is specific to LPDAAC, perhaps this can be generalized.
 - ECHO will work with the 3 ECS DAACs to come up with a standardized message.

6. NCR 11004697 - WIST Product Email

NCR 11004697 requests that the "Total Order Price: \$#:###" text be removed from the WIST product email. Due to the recent LPDAAC billing changes, there are no more datasets with priced data. ECHO propose to conditionally remove this line. If the total order price is \$0.00, then WIST will not include this line in the email. Otherwise, if there is an order price, the information will be added.

This was accepted by the data centers on the meeting.

7. Communications Policies

In order to ensure that requests of the ECHO Operations team are promptly responded to, ECHO partners should use the echo-ingest@echo.nasa.gov for all ingest related questions and the echo@echo.nasa.gov mailing list for all other questions. Using these lists ensures that the entire ECHO Operations team is aware of the request and can respond.

ECHO would also like the data centers to send the list of contact addresses that should be used for contacting the data centers.

- Amanda - Isn't this in the OA?
 - Yes it is, ECHO will review that with the DAACs.

8. Upcoming Events

- 10.15 to Partner Test (Week of 9/1)

- 10.16 to Operations (9/16/09)

9. Questions/Comments

None